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# Is Your Drug Waste also Hazardous Waste?

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Hazardous Waste Program technical bulletin

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The Missouri Department of Natural Resources' Hazardous Waste Program prepared this technical bulletin for Missouri businesses and institutions to help identify and manage drug waste that is considered hazardous waste. This information should not be used in place of state and federal laws.

## What is Drug Waste?

Drug waste can be any of the following discarded or confiscated items:

- Pharmaceutical products
- Illegal drugs
- Drug precursors or ingredients

## What is Hazardous Waste?

Hazardous waste is any waste that

- has been or is intended to be discarded, as described in 40 CFR 261.2,
- has not been excluded by federal or state law, and
- shows at least one of the following characteristics:
  - Flammable
  - Corrosive
  - Reactive (e.g., explosive)
  - Toxic
  - Listed (identified) as a hazardous waste in state or federal law

## Why is it Important to Know if a Drug Waste is Hazardous Waste?

Although seemingly harmless in small amounts, drug waste can create a serious hazard to human health and the environment if disposed of incorrectly. State and federal laws require wastes identified as hazardous to be handled, stored, treated and disposed of in a certain way. All non-exempt hazardous wastes must be disposed of at a permitted hazardous waste treatment and disposal facility.

## How Do I Know Which Drug Waste is Hazardous Waste?

There are three primary ways that drug waste can be identified as a hazardous waste:

- It exhibits one or more characteristics of a hazardous waste
- It is specifically identified as a P-listed waste in 40 CFR 261.33
- It is specifically identified as a U-listed waste in 40 CFR 261.33

P-listed waste includes specific unused or off-specification acutely hazardous (extremely toxic or reactive) commercial chemical products that have been or intend to be discarded. U-listed waste includes specific unused or off-specification commercial chemical products that have



been or is intended to be discarded. Commercial chemical products include all chemical mixtures where an ingredient of the chemical that is P- or U-listed is the only active ingredient. The commercial chemical product is not a P- or U-listed waste if the listed chemical is not the only active ingredient, even if the other active ingredient(s) are P- or U-listed.

The active chemical ingredients listed in paragraphs (e) and (f) of 40 CFR 261.33 are listed by chemical name and not necessarily by their common or commercial name. Most chemicals can be identified by more than one name. Cross-referencing chemical synonyms and verifying by Chemical Abstract Number must be done to confirm that the chemical does not have another name that is on the P- or U-list\*. A list of common drug precursors and ingredients that are P- or U-listed hazardous wastes is given in the following tables:

Hazardous Waste No.	Substance
P001	Warfarin >0.3%
P012	Arsenic trioxide
P042	Epinephrine
P046	Phentermine
P075	Nicotine
P081	Nitroglycerin
P188	Physostigmine salicylate
P204	Physostigmine

Hazardous Waste No.	Substance
U002	Acetone
U034	Chloral Hydrate
U044	Chloroform
U075	Dichlorodifluoromethane
U089	Diethylstilbestrol
U117	Ethyl Ether
U121	Trichloromonofluoromethane
U122	Formaldehyde
U129	Lindane
U132	Hexachlorophene
U141	Isosafrole
U151	Mercury
U159	Methyl Ethyl Ketone
U182	Paraldehyde
U187	Phenacetin
U188	Phenol
U200	Reserpine
U201	Resorcinol
U202	Saccharin
U203	Safrole
U205	Selenium Sulfide
U220	Toluene
U248	Warfarin <0.3%

**\*Online sources that may be used to cross-reference multiple chemical names include**

- *ChemFinder*  
www.chemfinder.com
- *Merck Index: An Encyclopedia of Chemicals, Drugs & Biologicals*  
<http://library.dialog.com/bluesheets/html/bl0304.html>
- *NIST Chemistry WebBook*  
webbook.nist.gov
- *Scorecard*  
[www.scorecard.org/chemical-profiles/](http://www.scorecard.org/chemical-profiles/)

## **What If My Business Produces One of These Wastes?**

Your business or institution may be considered a hazardous waste generator if you produce any of the hazardous wastes listed in the previous tables. If you produce or accumulate more than 1 kilogram or 2.2 pounds of a P-listed waste per month or at any one time, your business is considered a large quantity hazardous waste generator. Please refer to the appropriate state and federal laws and regulations and request the fact sheet, *Does Your Business Generate Hazardous Waste?* (Pub117) from the department's Outreach and Assistance Office, available online at [www.dnr.mo.gov/oac/pub117.pdf](http://www.dnr.mo.gov/oac/pub117.pdf).

## **How to Obtain Copies of Hazardous Waste Laws and Regulations**

- *Missouri Revised Statutes (RSMo)*, including the *Missouri Hazardous Waste Management Law*, are available from the Revisor of Statutes, (573) 526-1288, or online through the Missouri General Assembly Web site at [www.moga.state.mo.us](http://www.moga.state.mo.us)
- *Missouri Code of State Regulations (CSR)* is available from the Missouri Secretary of State's Office, (573) 751-4015, or online at [www.sos.mo.gov/adrules/csr/csr.asp](http://www.sos.mo.gov/adrules/csr/csr.asp).
- *Code of Federal Regulations (CFR)* is available online at [www.gpoaccess.gov/cfr/](http://www.gpoaccess.gov/cfr/). Copies may be purchased from a U.S. Government Bookstore, the U.S. Government Printing Office or from a commercial information service such as the Bureau of National Affairs.

## **For More Information**

For more information on the storage, treatment and disposal of hazardous waste, please call or write:

Missouri Department of Natural Resources  
Hazardous Waste Program  
Permits Section  
P.O. Box 176  
Jefferson City, MO 65102-0176  
1-800-361-4827 or (573) 751-3553  
[www.dnr.mo.gov/alpd/hwp/permits.htm](http://www.dnr.mo.gov/alpd/hwp/permits.htm)